

REMARKS

This paper amends claims 6 to provide a correct antecedent basis. Claims 6, 8-10, 19, 21-24, 34-37 and 49-54 remain.

All pending claims have been rejected under 35 USC §102 in view of Naik. Claims 6, 19, 34 and 49 are independent claims. Reconsideration of the rejection is respectfully requested, it is believed that the Examiner has misconstrued applicable portions of the Naik reference.

It is noted that the Advisory Action appears to only address the comments directed to independent claim 6 and not the other independent claims. Reconsideration of the arguments presented below for each independent claim are requested.

Independent Claim 6

Claim 6 includes the limitation (bold added for emphasis):

an insulative layer formed on said substrate **from said non-exposed portions** of said photo-definable layer **which remain after** the positive mask scheme and **are then** subsequently converted to the insulative layer **through exposure to further electro-magnetic radiation.**

As such it is noted that the claim requires an insulative layer to be formed from non-exposed portions of the photo definable layer **which remain after the mask scheme and are then** converted to an insulative layer by **further electro-magnetic radiation.** Thus, after the masking scheme is accomplished further radiation is used to convert the non-exposed portions to an insulator. Thus two radiation exposures are called out. The Final Office Action points to Figure 4E of Naik. (Final Office Action, p. 7). However, Figure 4E of Naik is the original masking scheme and there is no "further" exposure "after the mask scheme." Moreover, the non-exposed portion (424) of Naik is never converted to an insulator.

Applicant respectfully asserts that the disclosure of Naik has been misconstrued with regard to this element of Claim 6.

Independent Claim 19

It is noted that Claim 19 includes the limitation (emphasis in bold added): “wherein said insulative layer comprises an oxide layer and the non-exposed portions of **said photo-definable layer are utilized to mask the oxide layer to form said patterned insulative layer.**” The Office Action states that non-exposed portions 424 of the photo-definable layer 408 are utilized to mask the oxide layer to form the patterned insulative layer citing Figures 4E-4I. (Final Office Action, p. 7).

It is respectfully noted the only possible oxide layer of Figures 4A-4J is layer 404 (defined in Paragraph 0054 of Naik as an etch stop of silicon dioxide or silicon nitride). Layer 406 is not an oxide but rather a low K dielectric (Naik notes that low K dielectrics are organic or carbon based layers, Paragraph 0008). The photo-definable layer 408 masks the low K dielectric layer 406 as shown in Figures 4F-4G of Naik not the oxide layer 404. It is the low K dielectric layer 406 that operates as the mask of the oxide layer 404 as shown in Figures 4G-4H.

Independent Claim 34

It was noted in response to the non-final Office Action that the first Office Action had misconstrued an insulative layer in Naik as a conductive layer. In particular, the Office Action states that layers 302 and 324 are both a “conductive layer”. It is respectfully noted that layers 302, 312, 314, and 324 are all insulative layers however. In particular layer 302 is a low K material [Naik paragraph 0044], layer 312 is a copper passivation layer “for example silicon nitride” [Naik paragraph 0048], layer 314 is a second low K material [Naik paragraph 0049] and layer 324 is a second copper passivation layer [Naik paragraph 0049].

In the Final Office Action the section entitled “Response to Applicant’s Amendment and Arguments” fails to address Claim 34 or the mistake regarding the composition of the layers of Naik with regard to the rejection based on Naik.

Independent Claim 49

Independent Claim 49 is directed toward a claimed embodiment which includes the use of both a photodefinable layer that can be converted to an insulative material (for example a PPMS layer than can be converted to an insulative material) in combination with the use of a separate organic photoresist layer. More particularly, Claim 49 includes: “an insulative layer on said substrate formed by **covering a photo-definable layer with a separate patterned organic photoresist...**” In the Office Action, the cited photo-definable layer of Naik is PPMS layer 408 of Figures 4A-4J. However, **there is no other layer in Naik that covers layer 408**, let alone the use of a separate patterned organic photoresist covering layer 408.

It is respectfully asserted that Naik fails to teach or suggest each independent claim as noted in this response and as further noted in the response to the first office action.

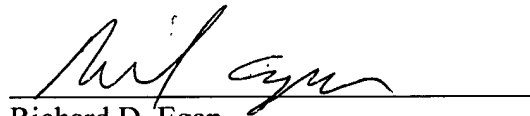
CONCLUSION

In view of the foregoing, it is submitted that the claims are in condition for allowance. Accordingly, favorable reconsideration and Notice of Allowance are courteously solicited.

The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Should any fees under 37 CFR 1.16-1.21 be required for any reason relating to the enclosed materials, including any additional fee for an extension of time, the Commissioner is authorized to deduct such fees from O'Keefe, Egan & Peterman Deposit Account No. 10-1205/MTIP:003D1.

Respectfully submitted,



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